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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,916	03/18/2004	Angelo Arcaria	87321.1760	5434

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EXAMINER
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TWEEL JR, JOHN ALEXANDER

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

57

<b>Office Action Summary</b>	<b>Application No.</b> 10/802,916	<b>Applicant(s)</b> ARCARIA, ANGELO	
	<b>Examiner</b> John A. Tweel, Jr.	<b>Art Unit</b> 2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shipley** [U.S. 4,967,195] in view of **Tada** [U.S. 6,774,812].

For claim 1, the dome light assembly taught by **Shipley** includes the following claimed subject matter, as noted, 1) the claimed display is met by the numerous dome lights (Nos. 37, 42, 44, 48) as well as the zone lamp (No. 22), and 2) the claimed receiver is met by each corresponding room (Nos. 18-21) that receives incoming signals and activates the display in accordance with the signal. However, there is no single pair of wires that transmit power and the control signal. Eight conductors are used as four twisted wire pairs.

To transmit power and data over a single pair of wires is not new in the prior art. The two-wire type remote control system and display device taught by **Tada** includes a centrally located monitor control device (No. 2) that transmits and receives data and electricity to several display devices (No. 1) through a pair of power lines (No. 3). One obvious advantage of this configuration is that a two-wire remote control system is

provided of a general usage of a wide variety, having various functions and yet suppressed power consumption.

When the receiver-side device includes a display means, the power consumption by the display device cannot be neglected. It is important to reduce the power consumption as much as possible while keeping the best possible performance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a single pair of wires for transmission of data and power in the system of Shipley for the purpose of suppressing unneeded power consumption while maintaining an efficient display device.

For claim 2, the claimed transmitter is met by the central station (No. 16) of **Shipley** as well as the controller of **Tada**.

For claim 3, the displays of both references are comprised of identifiably distinct display elements.

For claim 4, the display elements of both a price display of Tada as well as the dome light and zone lamp of Shipley are individually activated.

For claim 5, the displays of both references are driven by electric power.

For claim 6, the display elements of both references emit visible light when activated.

For claims 7-10, to emit visible light in flashes or simultaneously or sequentially is a matter best left to the designer or user of the system in order to maximize its effectiveness, such as visibility, noticeability and the like. As this does not result in a new or unexpected result, this is considered an obvious variation on the prior art.

For claim 11, the zone lamp of **Shipley** contains colors for each display element.

For claim 12, both references provide audio signals. The system of Tada may also use a buzzer sound or voice.

For claim 13, the receiver of both references is collocated with the display.

For claim 14, the transmitters of both references are physically remote from the receiver.

For claim 15, the central controller of both references provides the electrical power of both receiving devices.

For claim 16, shielded wires have been used for many years for many different purposes. The use of shielded wires in this particular system is not considered a patentable innovation.

For claim 18, the method of indicating the status of a room taught by **Shipley** includes the following claimed steps, as noted, 1) the claimed receiving control signals is achieved using the room receivers (Nos. 18-21) to 2) activate a display device (Nos. 37, 42, 44, 48) in accordance with the content of the control signals. However, there is not a single pair of wires that transmit both power and the control signals.

The claim is interpreted and rejected for the same reasons and rationale as is mentioned in the rejection of claim 1 above.

For claim 19, the claimed transmitting is achieved using the central station (No. 16) of **Shipley**.

For claim 20, the dome light system taught by **Shipley** includes the following claimed subject matter, 1) the claimed means for receiving a control signal and power is

Art Unit: 2636

met by the receivers in the rooms (Nos. 18-21) that also 2) actuate the means for displaying (Nos. 37, 42, 44, 48) in accordance with the content of the signals. However, there is not a single pair of wires that transmit both power and the control signals.

The claim is interpreted and rejected for the same reasons and rationale as is mentioned in the rejection of claim 1 above.

For claim 21, the claimed means for transmitting is met by the central station (No. 16) of **Shipley**.

For claim 22, the dome light assembly taught by **Shipley** includes the following claimed subject matter, as noted, 1) the claimed display is met by the numerous dome lights (Nos. 37, 42, 44, 48) as well as the zone lamp (No. 22), and 2) the claimed receiver is met by each corresponding room (Nos. 18-21) that receives incoming signals and activates the display in accordance with the signal in at least one of a plurality of modes presented by either the dome light or zone lamp. However, there is no single pair of wires that transmit power and the control signal. Eight conductors are used as four twisted wire pairs.

The claim is interpreted and rejected for the same reasons and rationale as is mentioned in the rejection of claim 1 above.

3. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shipley** in view of **Tada** as applied to claims 1 and 2 above, and further in view of **Mollenkopf et al** [U.S. 6,965,302].

For claim 17, the combination of references above includes the claimed subject matter as discussed in the rejection of claims 1 and 2 above. However, in neither reference is there any mention of light conducted to a nonpowered display using at least one fiber optic light conductor.

The power line communication system taught by **Mollenkopf** uses an isolator (No. 240) that uses fiber optics or a "light pipe" for electrical power conversion. This reference is plain evidence that fiber optics have been used in power/data transmission for some time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a fiber optic system in the combination of references to take advantage of a well-known and common light propagation system.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Vitolo et al** [U.S. 3,824,560] presents a nurse response verification system useful in hospitals.

**Howard** [U.S. 5,065,133] converts digital signals for simultaneous transmission of power and signals.

**Barton et al** [U.S. 5,760,704] tracks patients electronically in an emergency room.

**Hougy et al** [U.S. 5,838,226] controls and determines the status of electrical devices from remote locations.

**Johansson et al** [U.S. 5,986,539] presents a DC power-line communication system.

**Redgate et al** [U.S. 6,281,784] conveys both power and data over power lines.

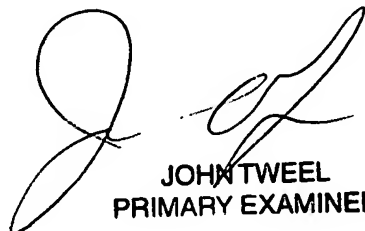
**Hair, III et al** [U.S. 6,906,618] depicts bidirectional data and power transmission.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Tweel, Jr. whose telephone number is 571 272 2969. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 571 272 2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAT  
2/16/06



JOHN TWEEL  
PRIMARY EXAMINER